

Application No.: 10/708,928

Docket No.: 60680-1780

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to FIGS. 1, and 3-6 .

Attachment: Replacement sheet
 Annotated sheet showing changes

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REMARKS

Applicants have carefully reviewed the Office Action mailed February 18, 2005, and thank Examiner Sharp for his detailed review of the pending claims. In response to the Office Action, Applicants have amended claim 1, canceled claim 2, and added new claims 6-8. By way of this amendment, no new matter has been added. Accordingly, claims 1 and 3-8 remain pending in this application. Applicants respectfully request reconsideration of the present application in view of the above amendment and the following remarks.

Specification

Paragraphs [0014], [0015] and [0017] have been amended to clarify the specification, as suggested by the Examiner.

Drawings

Applicant has amended FIGS. 1 and 3-6. FIG. 1 has been amended to clearly identify fastener assembly 10, threaded bore 22, and aperture 24. Support for this amendment may be found in paragraph [0012]. FIGS. 3-5 were revised to label the x and y axes. FIGS. 5 and 6 were revised to darken light lines. FIG. 6 has been revised to label the y axis.

Claim Rejections – 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by *Futamura* (U.S. Patent No. 4,118,9041). Applicants respectfully traverse the rejection.

To anticipate a claim, the reference must teach every element of the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Amended independent claim 1 positively recites that “the wave spring has an inner diameter slightly larger than an outer diameter of the retention sleeve.” The Examiner has identified a “spring type washer element 11” and “a retention sleeve 10” within *Futamura*.

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However, the "spring type washer element 11" of Futamura does not have an inner diameter slightly larger than an outer diameter of the "retention sleeve 10." Therefore, Futamura does not teach every element of independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by *Lindow* (U.S. Patent No. 4,517,133). Applicants respectfully traverse the rejection.

Amended independent claim 1 positively recites that "the wave spring has an inner diameter slightly larger than an outer diameter of the retention sleeve." The Examiner has identified a "wave spring 22" and "a retention sleeve 20, 21" in *Lindow*. However, the "wave spring 22" of *Lindow* does not have an inner diameter slightly larger than an outer diameter of the "retention sleeve 20, 21". Therefore, *Lindow* does not teach every element of independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1 and 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Kammerer, et al.* (U.S. Patent No. 5,655,489). Applicants respectfully traverse the rejection.

Amended independent claim 1 positively recites that "the wave spring has an inner diameter slightly larger than an outer diameter of the retention sleeve." The Examiner has identified a "wave spring 5" and a "retention sleeve 9" in *Kammerer*. However, the "wave spring 5" of *Kammerer* does not have an inner diameter slightly larger than an outer diameter of the "retention sleeve 9". Therefore, *Kammerer* does not teach every element of independent claim 1.

Dependent claim 3 is also patentable by being dependent on an allowable base claim. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by *Penn et al.* (U.S. Patent No. 4,456,268). Applicants respectfully traverse the rejection.

Independent claim 1 positively recites a wave spring and a retention sleeve. In column 1, lines 51-64, *Penn* teaches a stack of Belleville washers on a shoulder bolt. However, *Penn* does not teach a wave spring or a retention sleeve. Therefore, *Penn* does not teach every

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element of independent claim 1. Accordingly, withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Futamura* U.S. 4,118,041 in view of *Lindow* U.S. 4,571,133 and *Greenhill* (U.S. Patent No. 4,752,178). Applicants respectfully traverse the rejection.

MPEP Section 2143 sets forth the basic requirements for the Patent and Trademark Office to establish prima facie obviousness as follows: “To establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Independent claim 1 positively recites that “the wave spring has an inner diameter slightly larger than an outer diameter of the retention sleeve.” The remarks above with respect to the failure of *Futamura* and *Lindow* to anticipate claim 1 are equally applicable here. Specifically, neither *Futamura* nor *Lindow* teach a wave spring that has an inner diameter slightly larger than an outer diameter of a retention sleeve. Nor does *Greenhill* cure this inadequacy of *Futamura* and *Lindow*. Accordingly, *Futamura*, *Lindow*, and *Greenhill*, alone or in combination, do not teach every element of independent claim 1. Dependent claims 4 and 5 are also patentable by being dependent on an allowable base claim. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Penn et al.* (U.S. Patent No. 4,456,268) in view of *Seymour II, et al.* (U.S. Patent No. 2004/0159310A1) and *Greenhill* U.S. 4,752,178. Applicants respectfully traverse the rejection.

The Examiner states that “*Penn et al.* teach maintaining even gasket compressive loading through the use of wave springs (resilient means 17, claim 2).” However, *Penn* does not teach a wave spring, as positively recited in independent claim 1. Instead, *Penn* discloses a

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Belleville washer and a leaf spring, and no other types of springs for use with a fastener. (See FIGS. 1-4, and Column 2, lines 35-37, and 59-60).

A case of obviousness requires that there be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP § 2143; *In re Linter*, 458 F.2d 1013, 173 USPQ 560, 562 (CCPA 1972). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990), *W.L. Gore and Associates, Inc. v. Garlock, Inc.* 220 USPQ 303 (CAFC, 1966). Moreover, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

The Examiner has combined the bolt of Penn with the wavy washer 62b of Seymour to reject independent claim 1. Penn teaches a shoulder bolt for use in fastening that includes a Belleville washer. However, Penn does not mention the desirability of combining bolt 10 with a wave spring, as positively recited in independent claim 1. Seymour teaches a bolt 48 and a wavy washer 62b, however, there is no mention that the wavy washer 62b may be positioned around the bolt 48. Indeed, Seymour teaches that the wavy washer is positioned around a fuel injector body 20, not around a fastener. Furthermore, there is nothing in Seymour to indicate that the fastening mechanism for a fuel injector is equivalent to the bolt of Penn. Accordingly, neither Penn nor Seymour provide the requisite motivation to make the proposed combination.

Additionally, Greenhill teaches a circular, waved ring 10 that is "adapted to retain working elements 12 used in association with either a generally cylindrical shaft 14 or in a generally cylindrical bore 16. To accommodate the ring 10, each shaft or bore is provided with an annular groove 31, 31'." (Abstract, Column 3, lines 16-21). Therefore, Greenhill teaches the need for an annular groove to accommodate the ring. In contrast, the present invention uses a wave spring without an annular groove illustrated in FIGS. 3 and 4 of Greenhill. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

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Claims 1-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sihon* (U.S. Patent No. 5,397,206) in view of *Penn et al.* U.S.-4,456,268 and *Seymour II et al.* U.S.-2004/0159310A1. Applicants respectfully traverse the rejection.

The Examiner admits that “Sihon does not disclose a spring substitute for the elastomeric grommet (28).” (Office Action, page 10). Specifically, Sihon does not disclose a wave spring, as positively recited in independent claim 1. As mentioned above, Penn does not teach a wave spring. The Examiner has combined the bolts of Sihon and Penn with the wavy washer 62b of Seymour to reject independent claim 1.

Sihon teaches an elastomeric grommet and makes no mention of other types of biasing elements. Accordingly, Sihon does not provide any motivation to make the proposed change.

Also as mentioned above, Penn teaches a shoulder bolt for use in fastening that includes a Belleville washer. However, Penn does not mention the desirability of combining bolt 10 with a wave spring, as positively recited in independent claim 1.

Seymour teaches a bolt 48 and a wavy washer 62b, however, there is no mention that the wavy washer 62b may be positioned around a bolt. Indeed, Seymour teaches that the wavy washer is positioned around a fuel injector body 20, not around a fastener. Interestingly, Seymour utilizes a bolt that is similar to the bolt of Penn and Sihon, but Seymour does not teach positioning the wavy washer 62b around the bolt 48. Accordingly, neither Penn nor Seymour provide the requisite motivation to make the proposed combination.

Dependent claims 3-5 are also patentable by being dependent on an allowable base claim. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

New Claims

Claims 6-8 are added to capture additional subject matter and are patentable over the prior art of record.

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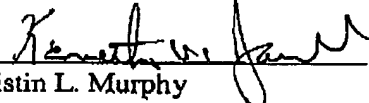
CONCLUSION

In view of the above amendment and remarks, the pending application is in condition for allowance. If, however, there are any outstanding issues that can be resolved by telephone conference, the Examiner is earnestly encouraged to telephone the undersigned representative.

It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper. However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge our Deposit Account No. 18-0013, under Order No. 60680-1780 from which the undersigned is authorized to draw.

Dated: May 18, 2005

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Attachments